

REMARKS

A. Claim Rejections - 35 U.S.C. § 112

1. Claim 3

Claim 3 has been amended to correct an obvious typographical error. The amended claim 3 as presented herein is identical with the claim 3 originally filed with this application, no longer refers to itself, and the antecedent basis for "said oligonucleotides" is found in claim 2.

2. "above a threshold value"

The Examiner contends that the meaning of the phrase "above a threshold value" is unclear in that the number of probes hybridizing, or a value in terms of hybridizing intensity, could have been intended. Claim 1 has been amended to clarify that hybridization intensity was the intent. This is clearly supported in many places throughout the specification, for example, the second sentence of the Abstract "...where the intensity of hybridization of all the probes are above a threshold value ..." And also page 33, lines 19-22 (paragraph immediately preceding "E) TRANSCRIPTIONAL ANNOTATION"); "In evaluating the hybridization data, a threshold intensity value may be selected below which a signal is not counted as being essentially indistinguishable from background." Thus, the changes to Claim 1 are amply supported in the specification and, Applicants respectfully submit, fully meet the Examiner's concerns.

3. "wherein hybridization of said probes targeting said subregion is similar"

Claim 6 is amended to clarify that hybridization intensities are intended, as supported by the specification as referenced above in connection with claim 1. See also (for example) page 4, lines 11-12, "...coding and non-coding regions with similar probe intensities give a high probability of an operon". And page 4, line 18, "...to identify areas where the probe intensities are similar."

The specification is amended on page 34 as indicated above in order to clarify the concept of "similar intensities" as used herein and, in particular, in claim 6. The unamended paragraph gave a typical example of intensities that are not "similar." Thus, it is not new matter, and within the purview of the Applicants to be their own lexicographer, to define the converse of "not similar" as "similar." Applicants respectfully submit that this clarifies the meaning of "similar" and meets the Examiners objection under 35 U.S.C. § 112.

B. Claim Rejections - 35 U.S.C. § 103

1. Claims 1-7 and 9

The Examiner has rejected claims 1-7, 9 under 35 U.S.C. § 103(a) as being unpatentable over Leary *et al* (WO 99/67422) in view of Lockhart *et al* (WO 97/10365). This rejection is respectfully traversed.

All claims presently pending in this application call for:

" ... (b) Identifying said transcribed region as a region of said genome where the hybridization intensities of all consecutive probes targeting said region are above a threshold value." Claim 1 as amended.
(Emphasis added)

Applicants respectfully call attention to MPEP § 2143.03 which requires "To establish *prima facia* obviousness of the claimed invention, all the claim limitations must be taught or suggested in the prior art. ... All words of a claim must be considered in judging the patentability of that claim against the prior art." (citations omitted). Applicants respectfully submit that the underlined element of the above segment from claim 1 is not taught nor suggested in the prior art.

The purpose of this claim element is clearly enunciated in the specification. For example,

....A region of the genome where the intensity of hybridization of all the probes are above a threshold value (usually the level of non-specific hybridization) is identified. The region may be identified by aligning the probes against the genome; walking through the genome to find regions where all consecutive probes have intensities above the threshold value.
Specification, page 34, lines 5-9. [Emphasis added]

...Multiple probes with similar intensities give a higher probability of a single transcript.
Specification, page 34, lines 20-21.

In some further embodiments, multiple adjacent transcripts including coding and non-coding regions with similar probe intensities give a high probability of an operon. Specification, page 35, lines 7-8.

Applicants respectfully submit that neither Lockhart nor Leary teach or suggest the advantageous identification of a region in which all consecutive probes have above-threshold hybridization intensities. Such advantages include, for example, having a higher probability that a single transcript has been located, and/or a high probability of an operon. Applicants respectfully submit that when this claim language is given effect in claim 1 as required by MPEP § 2143.03, claim 1 is nonobvious over the prior art.

MPEP § 2143.03 further states, "If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious." (citations omitted). Thus, since claim 1 is not taught or suggested in the prior art by a single reference or a combination of references, Applicants respectfully submit that all claims 1-9 (as amended) are nonobvious.

Conclusion

In view of the above amendments and remarks, Applicants respectfully submit that claims 1-9 are allowable.

If, however, the Examiner believes that any unresolved issues still exist in any of these claims, the

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Examiner should telephone Mr. George Wolken, Jr. Esq. at (408) 567-0340 so that the issues can be resolved as expeditiously as possible.

Respectfully submitted,

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